UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2011/2012

COURSE NAME	:	COMPUTER PROGRAMMING
COURSE CODE	:	BTI 10202/BTI1022
PROGRAMME	:	1 BDD
EXAMINATION DATE	:	JANUARY 2012
DURATION	:	2 HOURS
INSTRUCTION	:	ANSWER **FIVE (5)** QUESTIONS ONLY FROM **SIX (6)** QUESTIONS

THIS EXAMINATION PAPER CONTAIN SIX (6) PAGES

Q1 (a) List down SIX (6) phases of typical program development environment

(b) List down THREE (3) common programming errors and explain each of it.

(c) Describe the role and give an example on "Preprocessor directive".

(d) List down TWO (2) "header file" together with the list of the function, and construct a simple program.

(e) Define reserved word and give the example.

(f) Define "Identifier" and give TWO (2) example of "standard Identifier".

(20 marks)

Q2 (a) Define "expression" in C programming

(b) Arithmetic expression known as Mathematic expression. What is the arithmetic operator that used. Write down the operator symbol and meaning of it for each group?

(c) What is Unary operator? Give an example for prefix and Postfix in the term of increment.

(d) What is the output for program below?
```
int A = 5;
--A
printf("%d", A);
```

(e) Given the value of *no1* = 8. Determine the value of *no2* after the execution of the following statement below:

```
no2 = no1++ - 3
```

(20 marks)

Q3 (a) State down TWO (2) types of *Assignment statement* and give an example for each type.

(b) *Relational expression* are constructed by *relational operator*,
  (i) States down the *Relational operator* involve in order constructing the *Relational expression.*
  (ii) What types of output that produces by *Relational expression.*

(c) List down SEVEN (7) type operator in *Relational operator* and describe each of it.

(d) List down THREE (3) type operator in *Logical operator* and describe each of it.

(20 marks)

Q4 (a) Figure S1 shows the flow chart for simple *IF* statement. By using *C programming language*, writes down syntax that represent flow chart below.

(b) Draw the Flow Chart, for *Else statement* according to the syntax below.

Syntax:
```
if (condition)
{
        Statement set-1;
}
else
{
        Statement set-2;
}
Next Statement;
```

(c) Syntax below represent the *For loop control structure*,

```
int iCal;
for (iCal = 1; iCal <= 10; iCal++)  {
        printf("%d\n",iCal);
```

(ii) What is the output? and
(ii) Draw the flow chart that illustrating the *For loop control structure.*

(20 marks)

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Q5 **(a)** What are *Function* and the advantages using *Function* in C programming?

(b) **(i)** What is the output for coding below

```c
#include<stdio.h>
#include<conio.h>
voidswapByValue(int a, int b );
voidswapByAddress(int *a, int *b );

voidswapByValue(int a, int b ){
int temp;
temp = a;
a = b;
b = temp;
}

voidswapByAddress(int *a, int *b ){
int temp;
temp = *a;
*a = *b;
*b = temp;
}
int main(void){
int a, b;
a = 5, b = 8;

printf("\nIntially a=%3d and b=%3d ", a, b);
swapByValue(a, b);
printf("\nAfter swap by value a=%3d and b=%3d", a, b);
swapByAddress(&a, &b);
printf("\nAfter swap by address a=%3d and b=%3d", a, b);
getch();
return 0;
}
```

(ii) Explain the difference between passing by value and address

(20 marks)

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Q6 (a) (i) From the coding below, please give the suitable input and what is the expected output.

```
#include<stdio.h>
#include<conio.h>
main()
{
char initials;
printf("Your name initials>");
initials=getch();
printf("\n\nYour initial is = ");
putch(initials);
getch();
return 0;
}
```

(ii) Briefly explain for the coding above.

(b) (i) From the coding below, what is the expected output?

```
#include<stdio.h>
main()
{
int a,b;
float c,d;
a = 15;
b = a / 2;
printf("%d\n",b);
printf("%3d\n",b);
printf("%03d\n",b);
c = 15.3;
d = c / 3;
printf("%3.2f\n",d);
getch();
}
```

(ii) For the coding above, explain in brief for each *printf( )*

(20 marks)

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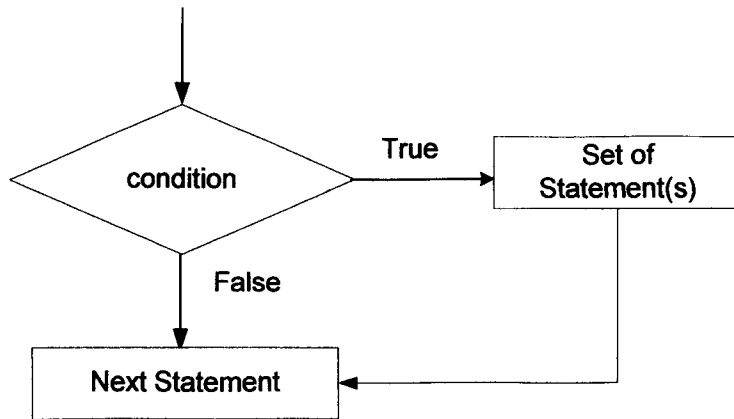COURSE : COMPUTER PROGRAMMING   COURSE CODE : BTI 10202

FIGURE Q1